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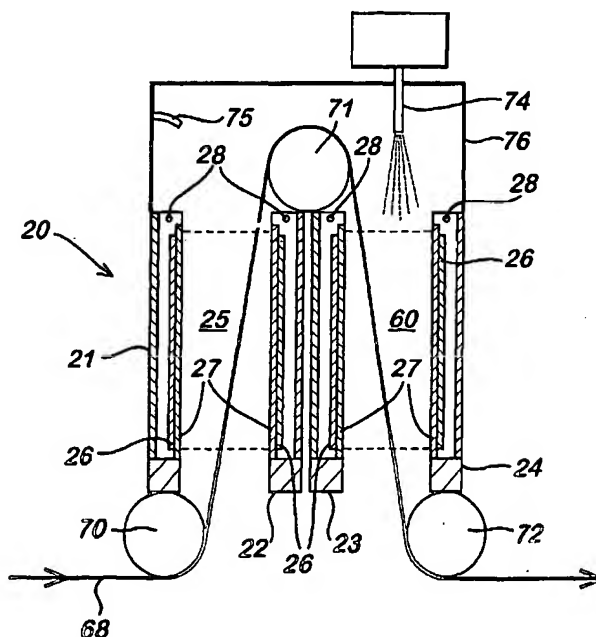
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- Declaration under Rule 4.17:
— of inventorship (Rule 4.17(iv)) for US only

[Continued on next page]

(54) Title: PROTECTIVE COATING COMPOSITION



(57) Abstract: A method of forming a coating on a powdered substrate, which method comprises introducing an atomised liquid and/or solid coating forming material and separately transporting a powdered substrate to be coated into an atmospheric plasma discharge and/or an ionised gas stream resulting therefrom, and exposing the powdered substrate to the atomised liquid and/or solid coating forming material.

WO 03/086030 A1

WO 03/086030 A1



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Fig. 1

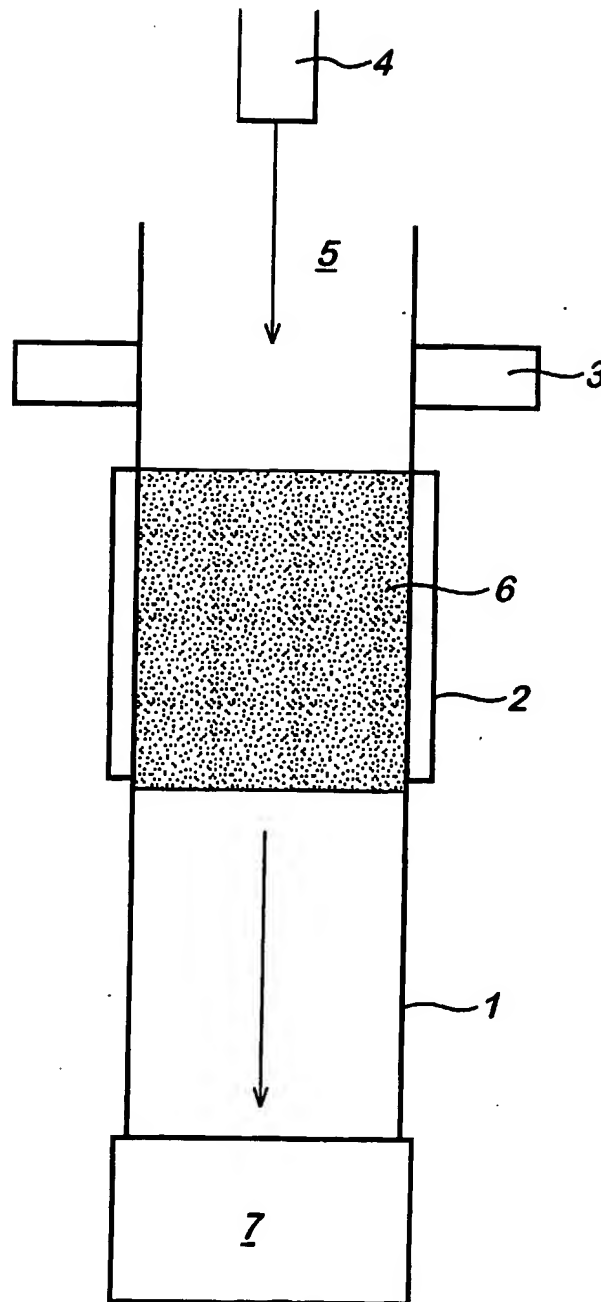


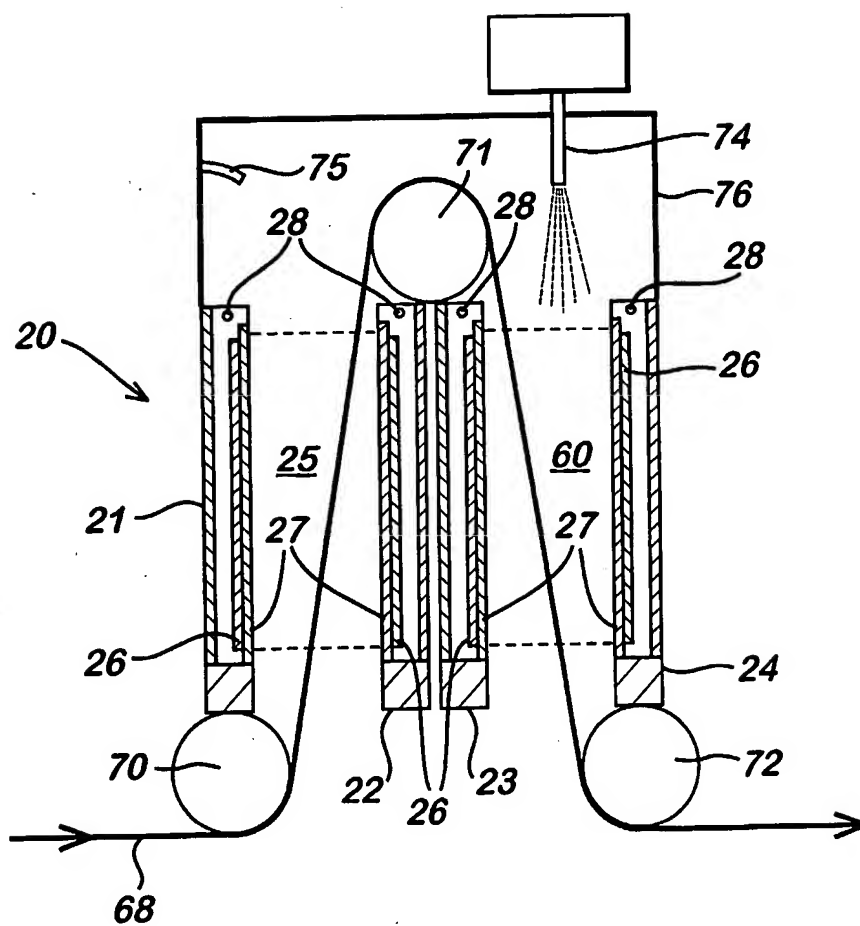
Fig. 2

Fig. 3a

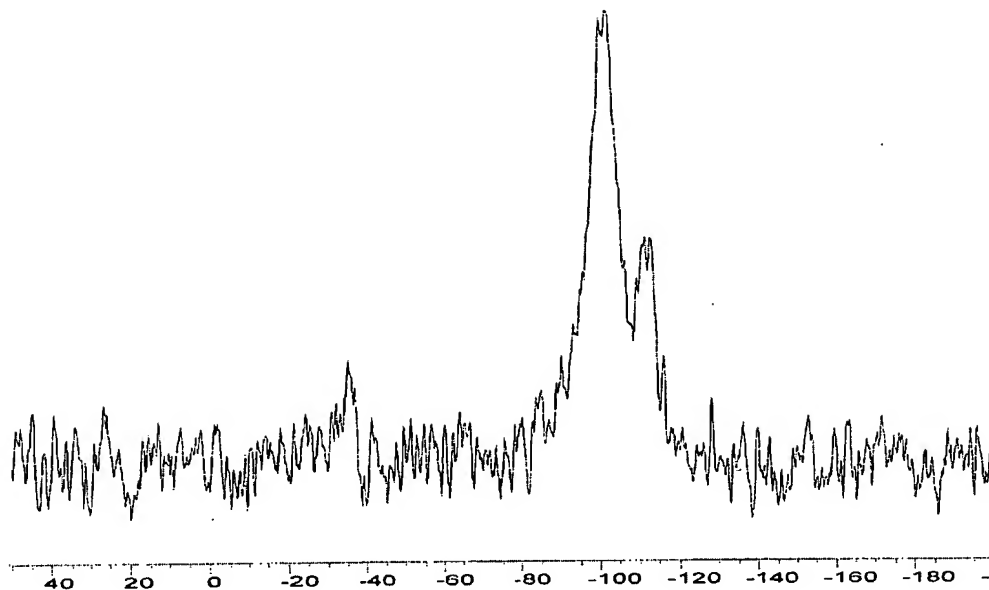
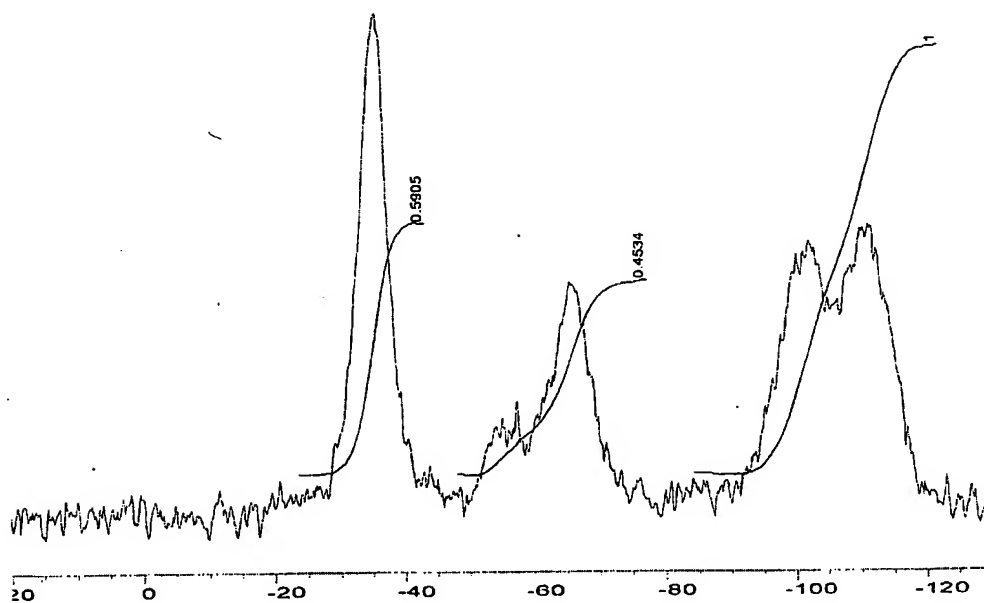


Fig. 3b



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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, Y	WO 02 28548 A (MERLIN PATRICK ;WARD LUKE (GB); BADYAL JAS PAL (GB); GOODWIN ANDRE) 11 April 2002 (2002-04-11) cited in the application page 2, line 15 -page 3, line 7 page 6, line 23 - line 32 page 9, line 11 - line 22 page 10, line 12 - line 26 claims 8,19,24	1-5, 7-15,17
Y	US 6 241 858 B1 (RAKSHA VLADIMIR ET AL) 5 June 2001 (2001-06-05) column 3, line 55 - line 65 column 8, line 56 -column 9, line 8 claim 13	1-5, 7-15,17

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, Y	WO 02 35576 A (DOW CORNING SA ; DOBBYN PETER (IE); HERBERT ANTHONY (IE); REILLY FE) 2 May 2002 (2002-05-02) cited in the application page 8, line 16 - line 26 page 9, line 17 - page 10, line 11 page 11, line 16 - page 12, line 34 ---	11-13
A	US 5 484 645 A (LICKFIELD DEBORAH K ET AL) 16 January 1996 (1996-01-16) column 2, line 56 - column 3, line 18 ---	6
A	US 4 568 605 A (DUFFER PAUL F ET AL) 4 February 1986 (1986-02-04) claim 1 ---	18
A	PATENT ABSTRACTS OF JAPAN vol. 017, no. 577 (C-1122), 20 October 1993 (1993-10-20) & JP 05 168949 A (TOYOTA MOTOR CORP), 2 July 1993 (1993-07-02) abstract -----	19

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/04346

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0228548	A	11-04-2002	AU 9009701 A EP 1326718 A2 WO 0228548 A2	15-04-2002 16-07-2003 11-04-2002
US 6241858	B1	05-06-2001	AU 6208200 A EP 1224242 A1 WO 0118127 A1	10-04-2001 24-07-2002 15-03-2001
WO 0235576	A	02-05-2002	AU 1086102 A WO 0235576 A1	06-05-2002 02-05-2002
US 5484645	A	16-01-1996	US 5503907 A US 5415925 A AT 164548 T AU 1265595 A DE 69409400 D1 DE 69409400 T2 DK 732992 T3 EP 0732992 A1 IL 111910 A JP 9506305 T WO 9515848 A1 AU 7327194 A NO 960218 A NZ 269402 A PL 312388 A1 WO 9503172 A1 AT 145681 T AU 669197 B2 AU 4598793 A BR 9306527 A CA 2137132 A1 CN 1086276 A DE 69306254 D1 DE 69306254 T2 EP 0644962 A1 FI 945804 A JP 7507847 T MX 9303479 A1 NO 944774 A NZ 254329 A WO 9325746 A1 US 5593768 A	02-04-1996 16-05-1995 15-04-1998 27-06-1995 07-05-1998 29-10-1998 01-02-1999 25-09-1996 16-08-1998 24-06-1997 15-06-1995 20-02-1995 19-03-1996 26-11-1996 15-04-1996 02-02-1995 15-12-1996 30-05-1996 04-01-1994 15-09-1998 23-12-1993 04-05-1994 09-01-1997 12-06-1997 29-03-1995 09-12-1994 31-08-1995 31-05-1994 09-12-1994 21-12-1995 23-12-1993 14-01-1997
US 4568605	A	04-02-1986	US 4530889 A AU 565607 B2 AU 4510685 A CA 1255454 A1 EP 0192810 A2 JP 1691562 C JP 3053112 B JP 61175036 A	23-07-1985 24-09-1987 22-01-1987 13-06-1989 03-09-1986 27-08-1992 14-08-1991 06-08-1986
JP 05168949	A	02-07-1993	JP 3120519 B2	25-12-2000